

July 24, 2012

**VIA ELECTRONIC FILING**

Marlene Dortch  
Secretary  
Federal Communications Commission  
445 12th St. S.W.  
Washington, D.C. 20554

**Re: Permitted Written *Ex Parte* Presentation in  
ET Docket No. 10-4**

Dear Ms. Dortch:

Cellphone-Mate, Inc. ("Cellphone-Mate") writes to comment on the coalition proposal for signal booster standards.<sup>1</sup> The purpose of this letter is to focus on three major issues before the Commission: (1) the manner in which signal boosters should be authorized, (2) efforts by major carriers to require their consent for signal boosters, and (3) the inadequate record in this proceeding with respect to signal boosters designed for the enterprise market.

Although Cellphone-Mate has significant concerns about elements of the Joint Proposal that was developed by certain of the parties to this proceeding, the general framework is a good consensus effort and the compromises form the outline of a workable safe harbor proposal that meets the needs of consumers, manufacturers, and carriers. Certain aspects of the proposal would benefit from modification. For example, the proposed -19 dBm limit on intermodulation products for consumer signal boosters<sup>2</sup> could easily double the cost of a consumer signal booster, without providing any appreciable benefit in terms of avoiding harmful interference.<sup>3</sup>

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<sup>1</sup> *Letter from Nextivity, T-Mobile, V-COMM, Verizon Wireless, and Wilson to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 10-4 (June 8, 2012) ("Coalition Proposal")*.

<sup>2</sup> See *id.* at Attachment 2 addressing Standard 1, at 2.

<sup>3</sup> See also *Letter from Devendra Kumar, Attorney for Wireless Extenders, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 10-4 (July 18, 2012) (noting similar concerns with the draft intermodulation rules in the Joint Proposal)*.

Stringent intermodulation limits are better imposed on wireless base stations and not on consumer signal boosters that are not normally used to carry the simultaneous transmissions of large numbers of users.

Setting aside Cellphone-Mate's technical concerns with discrete aspects of the Joint Proposal, Cellphone-Mate believes the parties to the Joint Proposal risk a significant misstep by unnecessarily and unwisely entertaining the possibility of a regime in which carriers must grant consent, potentially subject to their own conformance tests, for the operation of signal boosters. Even if such consent could not be "unreasonably withheld," such an approach could chill booster deployment and risks undermining the booster market, and should not be considered a viable solution by the Commission. This issue remains a point of contention between the parties, and Cellphone-Mate offers the following further comments to address this crucial issue.

### **Signal Booster Authorization and Consent**

With regard to the threshold issue of the Commission's authority to authorize signal boosters, Cellphone-Mate agrees with Wilson and the Commission that the Commission has statutory authority to authorize boosters through a license-by-rule regime under Part 95.<sup>4</sup> This approach is both consistent with Commission precedent and with the public interest. As Wilson has done a thorough job of demonstrating the Commission's statutory authority, Cellphone-Mate has no need to repeat the arguments again here.

Cellphone-Mate urges the Commission to adopt the license-by-rule approach it has originally considered.<sup>5</sup> Licensing boosters by rule streamlines the process for deploying boosters and gives effect to the parties' negotiations. Conversely, permitting carriers to both participate in the negotiation of the Commission's technical standards and then permit them to unilaterally impose their own conformance tests pursuant to which they could reject duly certified devices is illogical as well as giving carriers "two bites at the apple." Continuing consideration of a consent regime also reduces carriers' incentive to fully negotiate the safe harbor standards.

In addition to being illogical, any such consent requirement would create countless opportunities for carriers to dissuade or block customers from acquiring or using boosters, reducing consumer's ability to remediate poor access to wireless services. Specifically, a requirement that consumers secure the consent of carriers would likely result in three outcomes:

First, would-be users of broadband signal boosters would be forced to seek consent not only from their own carrier, but also from other carriers that they don't receive service from.

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<sup>4</sup> *Letter from Wilson Electronics to Marlene H. Dortch, Secretary, Federal Communications Commission*, WT Docket No. 10-4 (July 13, 2012), at 5-8 ("Wilson Letter").

<sup>5</sup> Amendment of Parts 1, 2, 22, 24, 27, 90 and 95 of the Commission's Rules to Improve Wireless Coverage Through the Use of Signal Boosters, Notice of Proposed Rulemaking, FCC 11-53 ¶ 29 (2011) ("NPRM"); see also *Wilson Letter* at 8-9.

These other carriers have no incentive to grant their consent and a business motivation not to assist customers of competing carriers to remediate poor service.

Second, even for narrowband signal boosters requiring consent from only a single carrier, this requirement would chill booster adoption. As a preliminary point, Cellphone-Mate notes that it is highly unlikely that significant consumer demand could ever exist for narrowband signal boosters. Narrowband boosters are significantly more expensive than broadband boosters due to the additional filtering required and have much less utility because each booster can transmit the signals of only one carrier. Leaving aside these significant disadvantages, the imposition of a consent requirement involving a signal carrier would still leave a great deal of latitude for carriers to discourage or control signal booster use, while not explicitly or unreasonably withholding consent.

The vast majority, if not all, signal boosters currently sold are third-party devices not designed or marketed by carriers. A consent requirement could threaten this vibrant and growing third party market. For instance, the consent requirement would introduce uncertainty, making consumers less likely to purchase a booster lest they be refused consent to operate it. Carriers, which are already in an authoritative position with regard to their customers, could also use the consent requirement to dissuade consumers from purchasing the devices at all by, for example, assuring them a booster was inappropriate to their circumstances or that the lack of coverage would soon be resolved. Worse, carriers could even preferentially consent to the use of carrier-branded boosters, thus capturing booster sales and destroying the current competitive market for third-party devices.

Third, beyond the consumer market, any consent requirement would also devastate the market for enterprise-grade signal boosters (referred to in the Joint Proposal as Certified Engineered and Operated (“CEO”) signal boosters). Such devices offer even less justification for a consent requirement because they are often more sophisticated in their design (although many consumer-grade boosters are robust enough to be in wide use in enterprise-applications) and also because they are professionally installed. The increasing sophistication of signal boosters, both enterprise and consumer, is further evidence that this rapidly developing industry does not require, and would likely be harmed by, the uncertainty inherent in providing carriers with control of the booster market.

Adding to these significant competitive disadvantages is the fact that a carrier consent requirement would serve no beneficial purpose. As the Coalition Proposal demonstrates, carefully designed industry-consensus technical requirements such as those in the Coalition Proposal would ensure that all boosters in operation are capable of avoiding harmful interference with carrier networks, obviating the need for carriers to further restrict consumers’ access to them.<sup>6</sup> Such an approach would still contain the essential safeguard that boosters must cease operation immediately upon notice from a carrier or the Commission of an incidence of harmful interference, and would provide carriers, consumers, and the Commission much needed certainty about the status and availability of signal boosters to assist consumers in maximizing their access to wireless networks.

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<sup>6</sup> *Id.* at 9.

Ultimately, the value of signal boosters lies in their ability to empower consumers to “improve their cell phone coverage as they deem necessary.”<sup>7</sup> For these reasons, the goals of the NPRM would best be served by a license-by-rule regime. Conversely, a regime requiring consent from carriers would thoroughly frustrate the goals of the NPRM, and could seriously impair the growth of the booster market.

### **Enterprise Signal Boosters**

Although Cellphone-Mate is largely comfortable with the draft technical rules in the Joint Proposal as they are applicable to consumer signal boosters, Cellphone-Mate is concerned about the apparent inadequate development in the record for this proceeding of technical rules that would be applicable to enterprise or CEO signal boosters. The authors of the Joint Proposal identified a separate class of CEO signal boosters in its July 25, 2011 ex parte letter, but did not propose specific rules for such devices stating only that “[s]tandards for CEO Boosters would be developed by industry participants, including industry trade associations, manufacturers, installers, and licensed carriers.”<sup>8</sup> The letter acknowledges that CEO signal boosters would consist of “larger, higher powered signal boosters,” but goes on to suggest that their use would be limited to “large office campuses, and similar settings” and further speculates that such systems would “require professional installation and close carrier coordination.”<sup>9</sup>

Cellphone-Mate agrees with the Joint Proposal that CEO signal booster would consist of higher power signal boosters that would be subject to professional installation. Cellphone-Mate believes, however, that the market for CEO signal boosters is much larger than suggested, including large and small retail establishments, businesses, factories, commercial and government offices, mass transportation and sports facilities, and other locations where people congregate.

Further, as explained in a previous section of this letter and in Cellphone-Mate’s reply comments in this proceeding,<sup>10</sup> given the fact that CEO boosters would be professionally installed, no reason exists for their operation to be subject to prior coordination and approval by wireless carriers. Despite this fact, the Joint Proposal suggests an extremely intrusive and burdensome approach to carrier approval of CEO booster installations including requirements that all commercial installations complete and pass carrier-approved testing procedures for each

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<sup>7</sup> NPRM, ¶ 2.

<sup>8</sup> Letter from John T. Scott, III and Andre J. Lechance, Attorneys for Verizon Wireless and Russell D. Lukas, Attorneys for Wilson Electronics, Inc., WT Docket No. 10-4, at 2 (July 25, 2011) (“Wilson/Verizon Joint Proposal”); see also *id.*, Attachment A, Consumer Booster Specifications for CMRS Spectrum Bands, V-Comm, L.L.C., at 7-8 (July 25, 2011).

<sup>9</sup> *Id.*

<sup>10</sup> See Reply Comments of Cellphone-Mate, Inc., WT Docket No. 10-4, at 8-12 (Aug. 24, 2012) (explaining in detail why requiring carrier coordination and consent is unnecessary and would significantly harm the market for enterprise signal boosters).

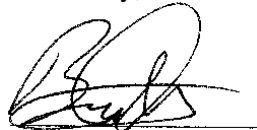
installation apparently before installation begins.<sup>11</sup> Professional installers would also be required to maintain a database of their customer installations, which must include proprietary and often sensitive information such as details regarding software remote control requirements and account security information.<sup>12</sup> Professional installers of signal booster equipment also would be obligated to be available to respond to inquiries from carriers and their agents on a 24/7 basis.<sup>13</sup>

The parties to the Joint Proposal do not explain why the Commission's rules for professionally installed signal boosters should be significantly more burdensome and intrusive than the rules for off-the-shelf consumer boosters. The practical impact of such rules, if adopted, could be even more devastating on the competitive market for enterprise boosters as compared to the consumer signal booster market, in part because, in the enterprise market, the party seeking the installation of the signal booster (*i.e.*, the business or building owner) may not have a commercial relationship with any wireless carrier and may instead be seeking to install a booster solely for the convenience of its customers and tenants. As a result, none of the major carriers may have a commercial incentive to approve the installation of a CEO signal booster unless it is marketed, sold and installed under its own brand name.

Cellphone-Mate therefore advocates the adoption of minimally burdensome rules for CEO signal boosters, enabling their design, installation and use at power levels and other technical specifications that reflect the Commission's rules that already exist for the various frequency bands allocated to wireless services. In this manner, the rapidly growing enterprise market for CEO signal boosters can continue to flourish, ensuring the availability of wireless broadband services in many of the locations that major carriers often find most difficult to serve – inside commercial, office and retail establishments.

Please contact the undersigned if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bruce A. Olcott', written over a horizontal line.

Bruce A. Olcott  
Counsel to Cellphone-Mate, Inc.

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<sup>11</sup> See Wilson/Verizon Joint Proposal at 3.

<sup>12</sup> See *id.* at 2; see also *id.*, Attachment B at 9-10.

<sup>13</sup> See *id.*